## 503874537 06/16/2016

# **PATENT ASSIGNMENT COVER SHEET**

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HARRY-HAK-LAY CHUANG	05/16/2016
KUEI-HUNG SHEN	04/28/2016
HSUN-CHUNG KUANG	04/28/2016
CHENG-YUAN TSAI	04/28/2016
RU-LIANG LEE	04/26/2016

#### **RECEIVING PARTY DATA**

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.
Street Address:	NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15130065

### **CORRESPONDENCE DATA**

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NAME OF SUBMITTER:	ANTHONY KING
SIGNATURE:	/Anthony King/
DATE SIGNED:	06/16/2016

**Total Attachments: 2** 

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PATENT REEL: 038930 FRAME: 0589

Your Ref: P20151377US00

US ONLY

#### ASSIGNMENT

WHEREAS, I(we), CHUANG, HARRY-HAK-LAY, SHEN, KUEI-HUNG, KUANG, HSUN-CHUNG, TSAI, CHENG-YUAN and LEE, RU-LIANG whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled

	OR STRUCTURE AND MET		
(hereinafter referred to as the	INVENTION) for which an application with unless at least one of the follow	n for United States Letter	
United States of America	cil 2016 Serial No.: nternational Patent Application No.:	15/130,065 filed:	designating the
WHEREAS, TAIWAN SE	MICONDUCTOR MANUFACT N RD. 6, HSINCHU SCIENC	URING COMPANY	LTD. whose post office

address is NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK, HSINCHU, TATWAN, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States and its territorial possessions;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application for the full term or terms for which the same may be granted, including all priority rights under any International Convention.

ASSIGNOR further covenants that no assignments, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment;

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the INVENTION that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance, litigation and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Assignor Name CHUANG, HARRY-HAK-LAY	51 PAYA LEBAR CRESCENT, SINGAPORE 536191
Signature of Assignor (X)	Date of Signature, (X) 5 (16/5016
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

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Assignor Name	Address
SHEN, KUEI-HUNG	4F4, NO.82, DAXUE RD., HSINCHU CITY 30080, TAIWAN (R.O.C.)
Signature of Assignor  (X) 5HUV, Kae: - Huy  Name of Witness (optional)	Date of Signature (X) 4/18/16
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
Assignor Name KUANG, HSUN-CHUNG	NO.5, LN.71, DUNFENG RD., XIANGSHAN DIST., HSINCHU CITY 300, TAIWAN (R.O.C.)
Signature of Assignor / Law Olny	Date of Signature (X) 4/28/16
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Wilness (Optional)
Signature of Witness (optional)  Assignor Name TSAI, CHENG-YUAN	Address
Assignor Name TSAI, CHENG-YUAN  Stenature of Assignar	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)
Assignor Name TSAI, CHENG-YUAN	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature
Assignor Name TSAI, CHENG-YUAN  Stenature of Assignar	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature (X) 4/28/1/6
Assignor Name TSAI, CHENG-YUAN  Signature of Assignor  (X) TGG Lhary Conv.  Name of Witness (optional)	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature (X) 4/28/// Name of Witness (optional)
Assignor Name TSAI, CHENG-YUAN  Signature of Assignor  (X) TGG Lhary Conv.  Name of Witness (optional)	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature (X) 4/28/// Name of Witness (optional)
Assignor Name TSAI, CHENG-YUAN  Signature of Assignor (X) TGA: Lhardfore Name of Witness (optional)  Signature of Witness (optional)  Assignor Name LEE, RU-LIANG  Signature of Assignor (X)	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature (X) 4/28/// Name of Witness (optional)  Signature of Witness (Optional)  Address 14, ALLEY 1, LANE 192, GAOFENG ROAI HSINCHU, TAIWAN (R.O.C.)
Assignor Name TSAI, CHENG-YUAN  Signature of Assignor (X) TGA: Lhar-Year Name of Witness (optional)  Signature of Witness (optional)  Assignor Name LEE, RU-LIANG  Signature of Assignor	Address 101, WEN-YI ST, CHU-PEI CITY, HSIN-CHI COUNTY, TAIWAN (R.O.C.)  Date of Signature (X)  Name of Witness (Optional)  Signature of Witness (Optional)  Address 14, ALLEY 1, LANE 192, GAOFENG ROAI HSINCHU, TAIWAN (R.O.C.)  Date of Signature